SECA Physics
Friday 9 January 2015

Welcome!!!

H. Leslie Grebe

* Pick up:
  - slip of paper (for later)

https://www.youtube.com/watch?v=By1sRYcp4nA

Opening activity:

Eureka video: what's the point of the cup and the bucket?

BUCKET HAD MORE HEAT = TOTAL

CUP HAD HIGHER TEMP.

Centering

Sep 7-7:04 AM

Game! True or False...

Yellow => True

Blue => FALSE

Numbered Heads Together

* Make groups of 3
  - make sure you know everyone's name
  - tell each other what sport you like best (play or watch)
* Figure out who is #1, #2, #3

* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"

* Leslie pulls a number and that person will give the group's answer.

Jan 4-7:01 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

1. Common ice can be colder than 0 °C.

BECOMES SOLID

SOLIDS CAN BE DIFFERENT TEMPS.

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

2. Molecules move faster when the temperature is lower.

SIMULATOR: SLOWER MOLECULES MEANS LOWER TEMP.

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

3. There are exactly 2 scales to measure the temperature of something.

C, F, K, GREBES, . . .

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

4. In Celsius, zero means no molecule motion.

KELVIN

SOLIDS STILL WIGGLE

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

5. When 2 substances of different temperatures are in thermal contact, heat flows (transfers) from the higher temperature substance to the lower temperature substance.

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

6. A temperature change of 1°C is a bigger change than 1°F.

↳ STEPS

SO NEED FEWER STEPS TO GET FROM ONE TEMP TO ANOTHER

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

7. A cup of hot coffee has a greater total internal energy than an iceberg.

HEAT

370K

270 K

Why do you say that?

ICEBERG HAS SO MANY MOLECULES WITH WIGGLING ENERGY

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False: C, F

8. Water freezes at 36° G?

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

9. All parts of my desk chair are at room temperature.

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

10. All temperatures in ◦C are lower than the corresponding temperature in ◦F.

Below -40° F is lower

Why do you say that?

Jan 4-7:20 AM

Yellow => True

Blue => FALSE

NHT:
* Work together to figure out a **group** answer to the T/F question plus "**Why do you say that?**"
* Leslie pulls a number and that person will give the group's answer.

True or False:

11. 273K is the boiling point of water.

FREEZING

Why do you say that?

Jan 4-7:20 AM

RUN to GIG

Challenge:

Word challenge:

Make FIRE produce HEAT

OR

Number Challenge:

* Fahrenheit and Celsius have a linear relationship.
* We know 2 points on that line (freezing and boiling points)
* Find the y = mx + b formula that relates the two...

Dec 22-7:38 AM

Daily 3 Questions

* Every day except test/project days
* 3 Questions on the topics of the day
* Main source of daily points
* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

Your can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

TRUE OR FALSE

1. Common ice can be colder than 0 ◦C.

T

2. Molecules move faster when the temperature is lower.

F

3. There are exactly 2 scales to measure the temperature of something.

F

Jan 3-7:48 AM